

## ABSTRACT OF THE DISCLOSURE

A spreading code setting circuit generates  $N$  vectors, as spreading codes, which are  $+1$  or  $-1$  polarity and are unique to users. A multiplier multiplies the  $n$ th data and the  $n$ th spreading code corresponding thereto for the spread modulation. An FDM combining circuit modulates  $N$  pieces of data according to the FDM method. A FDM separating circuit demodulates received signals according to the FDM method. An inverse spreading code setting circuit generates  $N$  vectors, as inverse spreading codes, which are  $+1$  or  $-1$  polarity and are unique to users at the transmission side. A multiplier multiplies the  $n$ th data and the  $n$ th inverse spreading code corresponding thereto for inverse spread modulation.

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